4 Ways to Top a Box

Low-tech lids open without hinges

BY MATT KENNEY

Boxes are fun to make and can be a pleasant diversion between larger projects. With a bit of nice wood and a clever design, you can turn out a beautiful box in just a few hours. But there is one part of making a box that is never fun: installing high-quality hinges and getting them just right. And don't forget that you also have to buy them, for a box that might otherwise cost you nothing more than some leftover cutoffs.

You can avoid that hassle by making a box without hinges. Of course, you'll need another way to keep the top on, but the challenge of figuring out how to do that can lead to elegant and unique designs. Here are four great ways to do it. One is mine, one is from a *FWW* author, and two are from *FWW*'s art director and most prolific woodworker, Michael Pekovich.

Matt Kenney is a senior editor.

1 INSERTS HOLD THE TOP IN PLACE

They're fitted to the inside after the top is cut free from the bottom.

4 TIP THE LID AND STAND IT UP
The lid rocks back on tapered side rabbets when you press down on the back, allowing you to lift and stand it in a deeper back rabbet.
3 DROP THE TOP INTO A RABBET
The sides do all the work and hold the lid securely in place.
2 ONE BOX TOPS ANOTHER
Make the lid and then build the bottom to fit inside it.
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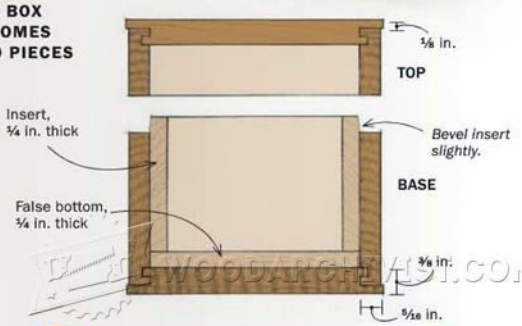
1 Inserts hold the top in place

One of my favorite ways to make a box is to glue up the sides, top, and bottom as a single unit. Once the box is assembled, I simply slice it in two. One half becomes the box, the other, the lid. To avoid hinges, you need some way to align the lid with the box. The answer is a handsome liner that extends above the edge of the box and keeps the lid snugly in place.

—Michael Pekovich

Cut off the top on the bandsaw. *All four edges end up level—something that never seems to happen at the tablesaw, where you cut into one side at a time. To smooth the bandsaw cuts, just rub the parts on a sheet of sandpaper stuck to a flat surface, like your tablesaw's table.*

ONE BOX BECOMES TWO PIECES



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TIP **DESIGN INSERT FOR GREATER FUNCTION**

This box was made to hold tea packets. The cutouts position your fingers for easy retrieval.

Fit the inserts. *Do the two ends first and then the front and back. For each side, miter one end at the tablesaw, mark the length directly from the box, and then miter the second end. The goal is a snug fit, so no glue is needed.*

Bevel their top edges. *Otherwise, the top won't fit easily over them. Mark the inserts so that you know how wide to make the bevels. The only practical way to do the job is with a block plane, because the inserts are small and the bevels are shallow.*

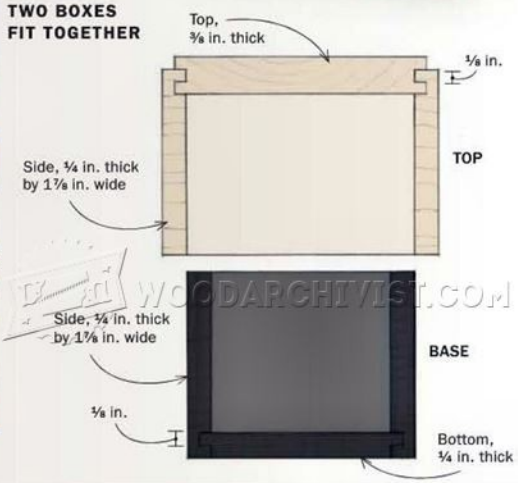
2 One box tops another

I see this box as a stripped-down version of box No. 1. Here, the bottom of the box acts like its own box liner. The lid nests over it almost completely, so lifting it off is like revealing a hidden box. Make the two out of contrasting woods for a more surprising revelation.

—M.P.

Glue up the top first. *Treat it like a box without a bottom, using blue tape at the corners to create clamping pressure on the miter joints.*

TWO BOXES FIT TOGETHER



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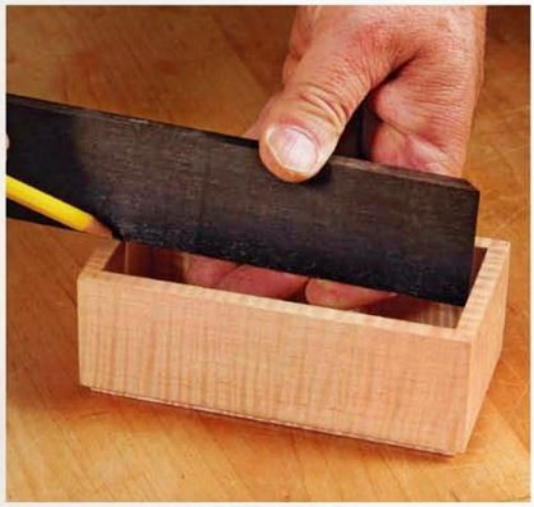
How to make the bottom box. *Attach an L-shaped fence to a miter gauge to prevent tearout. Start with pieces that are longer than the side's final dimension and make the first miter cut on each one (above). Then mark each side for final length by putting the mitered end inside the larger box and marking directly from it at the opposite end (right). To cut it to length accurately, line up the mark with the miter cut in the L-shaped fence on the miter gauge.*



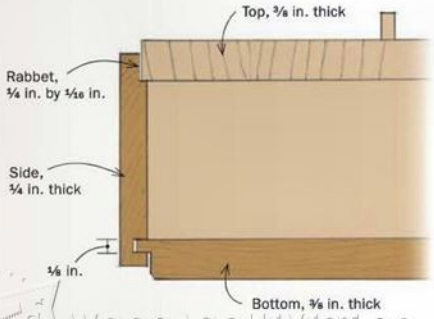
3 Drop the top into a rabbet

I wanted a box with a modern look and a thin top. So I gave a contemporary turn to the old trick of holding the top in a rabbet, putting in a full-height divider that splits the top in two (something that would have required four hinges in a traditional box). By the way, the lifts are attached with cyanoacrylate glue.

–M.K.

ROUT THE RABBETS

Align the router table's fence with the bit's bearing. Keep the side pressed down firmly; small deviations in the rabbet's depth are noticeable on a little box. (The groove is for the box's bottom.)



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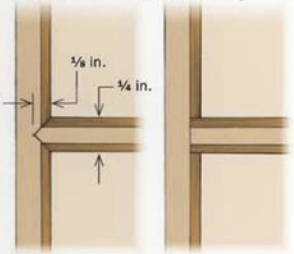
V-GROOVE BIT DIVIDES BOX

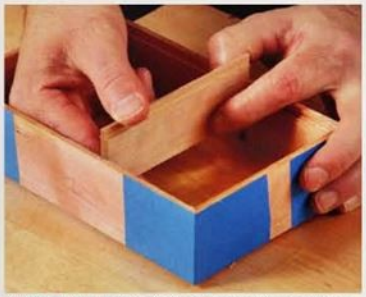
It should be as wide as the divider is thick and set up to cut its full width. Use a large backer board to keep the side square to the bit, and stop the cuts when they reach the bottom groove.

You could leave the divider inside the box, but it looks better full-height, separating the top into two parts. To join the divider to the sides, the best choice is a bird's-mouth joint, because it has a cleaner look that echoes the mitered corner joints.



MITER IS SHARP DADO IS CLUNKY

The same bit shapes the divider's ends. *Attach a zero-clearance face to your fence and align it with the middle of the bit. You shouldn't need to adjust the bit's height.*



Fit the divider. *Do it after gluing up the box (use blue tape in place of clamps). If the divider is long, plane a shaving or two from one tip and re-rout it.*

Cut the two-panel top. *Square one end of your lid stock, mark and cut the longer side to length, and then mark, cut, and fit the shorter one from the adjacent section.*

4 Tip the lid and stand it up

The lid of this box is a more sophisticated version of a lid in a rabbet, with the rabbets functioning like a hinge. The side rabbets are sloped at the back and the back rabbet is deeper than the other three. To open the box, you press on the back of the lid, bringing up the front edge so you can grab it. It rocks gently into the back rabbet, which holds it upright.

—John Nesset is a furniture maker in Minneapolis.

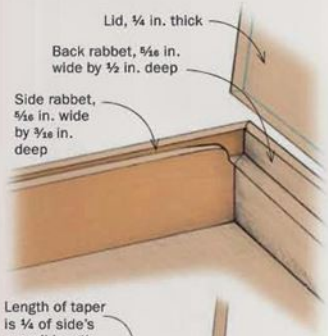
1. Press down. *Because the side rabbets are tapered toward the back, the lid's front edge raises up.*

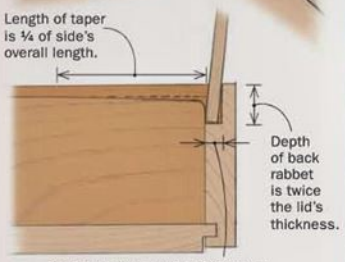
2. Lift. *The back edge turns smoothly down the rounded corner of the side rabbets, as if it were hinged.*

3. Enjoy. *The back rabbet is wider than the top is thick, so the lid leans back, coming to an easy rest.*

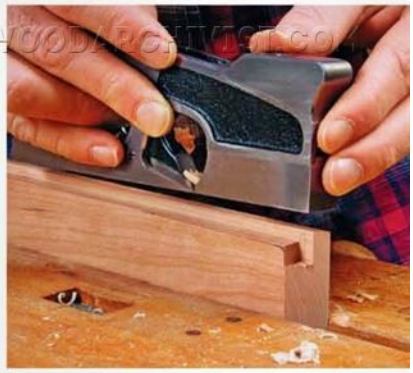
MODIFIED RABBETS ACT LIKE HINGES

The back rabbet functions like a built-in stop, holding the lid slightly past vertical so that it won't fall forward.





Back rabbet is roughly 25% wider than thickness of top.



Start with straight rabbets. *The back one is deeper to hold the standing lid (above). Next, square off the end of the side so that the miter doesn't stick into the back rabbet. Then taper the side rabbet. Start at the back corner and take a slightly longer stroke each time. The final stroke should be the taper's full length (right).*

Round the ends. *Pencil in the layout. Then use a flat chisel (left), making a big chamfer first and then nibbling away ever smaller facets. Smooth the arc with sandpaper.*